

BASIS FOR THE AMENDMENT

Claims 1, 10 and 18 have been amended as supported at page 1, lines 16-19.

No new matter is believed to have been added by entry of this amendment.

Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-7 and 10-19 will now be active in this application.

REMARKS

The present invention as set forth in **amended Claim 1** relates to a dried hydrogel, prepared by

polymerizing an olefinically unsaturated carboxylic acid or its salts in a polymerization reaction mixture;

admixing the polymerization reaction mixture, before, during or after the polymerization and before drying, with an alkali metal silicate of the general formula I



wherein M is an alkali metal and n is from 0.5 to 4;

postcrosslinking a resulting polymer;

thereby obtaining a **hydrogel containing said postcrosslinked polymer**; and drying said hydrogel at an elevated temperature, to obtain said dried hydrogel.

It is an object of the present invention to provide hydrogels capable of absorbing aqueous fluids which have a high absorption capacity, a high gel strength and high absorbency under load. See page 1, lines 16-19 and page 2, lines 26 and 27 of the specification.

US 5,075,371 and US 4,707,290 fail to disclose or suggest a dried hydrogel as claimed.

US 5,075,371 discloses highly cross-linked polymers for use in liquid gas chromatography. However, the polymers are **not post-crosslinked and therefore not structured**. Attached herewith is an Information Disclosure Statement citing page 97 of "Modern Superabsorbent Polymer Technology". Here it is disclosed that structured particles can be prepared by post-crosslinking. See Figure 3.9 at page 97 of

the reference. Such structured particles are different from the non-structured particles disclosed in the references cited by the Examiner.

US 5,075,371 further discloses the use of 2 to 30 wt.% cross-linker (column 6, lines 31 to 41) and does not mention the use of olefinically unsaturated carboxylic acids or its salts as source for these polymers (column 1, lines 43 to 55).

The polymers of the present invention are water-swellaable and therefore low cross-linked (highly cross-linked polymers cannot swell anymore). Thus, the amended claims are not anticipated by or obvious over US 5,075,371.

US 4,707,290 discloses a granular adsorbent, comprising **water-soluble** homopolymers (column 3, lines 35 to 41). In the present invention **water-insoluble** carboxylic acid polymers are used (specification, page 1, lines 10 and 11). In US 4,707,290, the polymers are **not post-crosslinked** and thus they are **not structured** compared to the post-cross-linked particles of the present invention.

Further, regarding **Claim 21**, as shown by the examples the polymers according to the invention are cross-linked copolymers and not homopolymers. In all examples acrylic acid was copolymerized with monomers that have at least two olefinically unsaturated groups: tetraallyloxethane (example 1 and comparative example 1), pentaerythrol triallyl ether (examples 2 to 15 and 21 to 25 and comparative examples 2 to 4a, 20 and 25), allyl methacrylate (comparative example 16 and inventive examples 17 to 19). Due to the crosslinking, the water-absorbent copolymers are water-insoluble and have high molecular weights. Thus, the amended claims are not anticipated by or obvious over US 4,707,290.

Therefore, the rejection of Claims 1-3, 6, 7, 10-14, 16 and 18-21 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over US 5,075,371, the rejection of Claims 4-5 and 17 under 35 U.S.C. §

103(a) as being unpatentable US 5,075,371 and the rejection of Claims 1-4, 6, 7, 10-16 and 18-21 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over US 4,707,290 are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

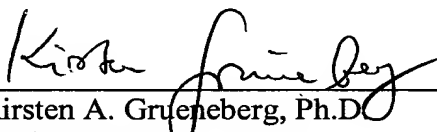
This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
NFO:KAG:


Kirsten A. Grueneberg, Ph.D.
Registration No.: 47,297